

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2003/001634

A. CLASSIFICATION OF SUBJECT MATTERInt. Cl. ⁷: C12N 015/12; A61P 035/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

SEE ELECTRONIC DATABASE BOX BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SEE ELECTRONIC DATABASE BOX BELOW

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

[WPIDS] [CA] [MEDLINE] [DGENE] [NCBI]: DCL1; DCL 1; DEC205; DEC 205; LY75; LY 75; LYMPHOCYTE ANTIGEN 75; C TYPE LECTIN; C TYPE LECTIN RECEPTOR; SPLICE VARIANT; SV; INTERGENIC; SEQ ID NO 2; SEQ ID NO 21.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database accession # BAB22377. Unnamed protein product [Mus musculus]. 228 amino acids. 15 February 2001. Kawai J et al. This sequence is 100% identical to SEQ ID NO 8 over 228 amino acids.	40-42, 44, 46-48, 50, 55, 56
X	Database accession # BAB23242. Unnamed protein product [Mus musculus]. 219 amino acids. 15 February 2001. Kawai J et al. This sequence is 100% identical to SEQ ID NO 8 over 219 amino acids.	40-42, 44, 46-48, 50, 55, 56

☒ Further documents are listed in the continuation of Box C
 ☐ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 19 January 2004	Date of mailing of the international search report 23 JAN 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized officer TERRY MOORE Telephone No : (02) 6283 2632

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos : 1, 29 and 37-56 (all partially)
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
See separate sheet.
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database accession # AAH05501. 1110055L24 Rik protein [Mus musculus]. 168 amino acids. 3 April 2001. Strausberg RL et al. This sequence is 99.5% identical to SEQ ID NO 8 over 168 amino acids.	40-42, 44, 46-48, 50, 55, 56
P, X	Kato M et al (2003). Hodgkin's lymphoma cell lines express a fusion protein encoded by intergenically spliced mRNA for the multilectin receptor DEC-205 (CD205) and a novel C-type lectin receptor DCL-1. The Journal of Biological Chemistry 278(36) 34035-34041. See the entire document.	1-56

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: I

The full scope of claims 1, 29 and 37-56 has not been searched because these claims are so inadequately supported by the description that a meaningful search is impossible.

The applicant's invention resides in the provision of intergenically spliced DEC-205/DCL-1 mRNA, termed '*DEC-205 SV*' (see page 19, lines 17-22), which encodes the intact DEC-205 ectodomain together with an additional carbohydrate recognition domain, a transmembrane domain and a cytoplasmic domain derived from DCL-1. As such, the applicant is entitled to claims DEC-205 SV and uses thereof.

Claims 1, 29, 37-38 and 51-54 are directed towards any DEC-205 intergenic splice variant, and methods of using such splice variants. The specification does not provide an overarching principle whereby any intergenic splice variant of DEC-205 may be identified, it merely provides support for DEC-205/DCL-1 splice variants.

Claims 39, 41 and 45-50 are directed towards agents that modulate the activity of DEC-205 SV, and uses of these agents. These are not claims to uses of DEC-205 SV, these are claims to agents that inherently interact with DEC-205 SV, and which owe nothing to the teachings of the specification.

Claims 40, 42-44, 46-50, 55 and 56 Claims 55 and 56 are directed towards methods of using DCL-1, and claims 40, 42-44 and 46-50 are directed towards agents that modulate the activity of DCL-1, and uses of these agents. DCL-1 is an agent that is capable of modulating DEC-2005 SV.

The claims have been searched as far as they relate to DEC-205/DCL-1 splice variants, or DCL-1, or uses thereof.